

Sequence Listing
SEQUENCE LISTING

<110> The University of British Columbia

<120> Insect Expression Vectors

<130> 80021-44

<140> US 09/048,911

<141> 1998-03-26

<150> US 60/049,946

<151> 1997-03-27

<160> 50

<170> PatentIn Ver. 2.0

<210> 1

<211> 564

<212> DNA

<213> *Orgyia pseudotsugata*

<400> 1

catgatgata aacaatgtat ggtgctaata ttgcttcaac aacaattctg ttgaactgtg 60

ttttcatgtt tgccaacaag cacctttata ctggtggcc tccccaccac caactttttt 120

gcactgcaaa aaaacacgct ttgcacgcg ggcccataca tagtacaac tctacgtttc 180

Sequence Listing

gtagactatt ttacataaat agtctacacc gttgtatacg ctccaaatac actaccacac 240

attgaacctt tttgcagtgc aaaaaagtac gtgtcggcag tcacgtaggc cggccttatac 300

gggtcgcgctc ctgtcacgta cgaatcacat tatcggaccg gacgagtgtt gtcttatcgt 360

gacaggacgc cagcttcctg tgttgctaac cgcagccgga cgcaactcct tatcggaaca 420

ggacgcgcct ccatatcagc cgcgcgttat ctcatgcgcg tgaccggaca cgaggcgccc 480

gtcccgtta tcgcgcctat aaatacagcc cgcaacgatac tggtaaacac agttgaacag 540

catctgttac agcgacacaa catg 564

<210> 2

<211> 44

<212> DNA

<213> Orgyia pseudotsugata

<400> 2

ccgcggatcg atatctgact aaatcttagt ttgtattgtc atgt 44

<210> 3

<211> 24

<212> DNA

<213> Orgyia pseudotsugata

Sequence Listing

<400> 3

cggggtgcgca cgcgcttgaa agga

24

<210> 4

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 4

aatttaaacg ttggtaccct cgagctcagc tgaattctgg atcct

45

<210> 5

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 5

ctagaaggat ccagaattca gctgagctcg aggtaccaag cttta

45

<210> 6

<211> 36

Sequence Listing

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 6

ctagaccggt catatgcggg ccgcggatcg atcgat

36

<210> 7

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 7

atcgatcgat ccgcggccgc atatgaccgt

30

<210> 8

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

Sequence Listing

<400> 8

tcgggtgcgc acgcgcttga aagga

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<210> 9

<211> 55

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 9

tcagctgcag atgaagaggc ctagacctat gaaaccagta acgttatatcg atgtc

55

<210> 10

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 10

acttaagctt atagcgatga ctgcccgcgtt tccagtcggg aaacctgtcg

50

<210> 11

Sequence Listing

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Bombyxin
secretion signal oligonucleotide fragment

<400> 11

aattatgaag atactccttg ctattgcatt aatgttgtca acagtaatgt ggggtgtcaac 60

aagctta

67

<210> 12

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Bombyxin
secretion signal oligonucleotide fragment

<400> 12

ctagtaagct tgttgacacc cacattactg ttgacaacat taatgcaata gcaaggagta 60

tcttcat

67

Sequence Listing

<210> 13

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Enhancer

sequence OpE

<400> 13

cctttcaagc gcgtgcgcac ccgaaaagca gggtcgccgc tgacgcactg ctaaaaatag 60

cacgcg

66

<210> 14

<211> 462

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Promoter

sequence of the OpMNPV ie2 gene

<400> 14

ccccaccacc aacttttttg cactgcaaaa aaacacgctt ttgcacgcgg gcccatacat 60

agtacaaact ctacgtttcg tagactattt tacataaata gtctacaccg ttgtatacgc 120

tccaaatata ctaccacaca ttgaaccttt ttgcagtgc aaaaagtacg tgtcggcagt 180

Sequence Listing

cacgtaggcc ggccttatcg ggtcgcgtcc tgtcacgtac gaatcacatt atcggaccgg 240

acgagtgttg tcttatcgtg acaggacgcc agcttcctgt gttgctaacc gcagccggac 300

gcaactcctt atcggaacag gacgcgcctc catatcagcc gcgcgttata tcatgcgcgt 360

gaccggacac gaggcgcccg tcccgttat cgcgcctata aatacagccc gcaacgatct 420

ggtaaacaca gttgaacagc atctgttaca gcgacacaac at 462

Sequence Listing

<210> 15

<211> 88

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of
promoter sequence of the AcMNPV ien gene

<400> 15

gataaattta aaatgaattt ttttgcaatg caaaaaagtt cacttttgcc tgacactcca 60

tatacagtac aatctctaca aatcgtag 88

<210> 16

<211> 92

Sequence Listing

<212> DNA

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<223> Description of Artificial Sequence: Fragment of
promoter sequence of the AcMNPV ien gene

<400> 16

ctatttttatt agaatagtct acactgtacg atacgctccc aatatactac tacactatca 60

acttttttgc attacaaaaa agttcatttt tg

92

<210> 17

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of
the promoter sequence of the AcMNPV ien gene

<400> 17

cctggcaagt tc

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<210> 18

<211> 17

<212> DNA

<213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Fragment of
the promoter sequence of the AcMNPV ien gene

<400> 18

ccccaccact attgtct

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<210> 19

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of
the promoter sequence of the AcMNPV ien gene

<400> 19

tatcagtcgt gcagta

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<210> 20

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of

Sequence Listing
the promoter sequence of the AcMNPV ien gene

<400> 20

ctgataaaca gtataaatac agctgccgtt ctactcgtaa gcacagttca

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<210> 21

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Fragment of
the promoter sequence of the AcMNPV ien gene

<400> 21

agcctcacag cctagtgaac agtat

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<210> 22

<211> 10

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: IE2B promoter
element

<400> 22

gacaggacgc

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Sequence Listing

<210> 23

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter
element

<400> 23

cttatogtga caggacgc

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<210> 24

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter
element

<400> 24

aacaggaagc

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<210> 25

Sequence Listing

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter
element

<400> 25

cttatcggaa caggacgc

18

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<210> 26

<211> 132

<212> DNA

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence:Native
melanotransferrin (p97) construct

<220>

<221> CDS

<222> (1)..(129)

<400> 26

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48
Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly
1 5 10 15

Sequence Listing

gca gcg gcc ccg gcg ccc ggg gcg ccc ctg ctc ccg ctg ctg ctg ccc 96
Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Leu Pro Leu Leu Leu Pro

20 25 30

gcc ctc gcc gcc cgc ctg ctc ccg ccc gcc ctc tga 132
Ala Leu Ala Ala Arg Leu Leu Pro Pro Ala Leu

35 40

<210> 27

<211> 43

<212> PRT

<213> Artificial Sequence

<400> 27

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Leu Pro Leu Leu Leu Pro

20 25 30

Ala Leu Ala Ala Arg Leu Leu Pro Pro Ala Leu

35 40

<210> 28

<211> 84

<212> DNA

<213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Deletion

construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(81)

<400> 28

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000

1 5 10 15

gca gcg gcc ccg gcg ccc ggg gcg ccc ctg atc tga 84

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ile

20 25

<210> 29

<211> 27

<212> PRT

<213> Artificial Sequence

<400> 29

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ile

20 25

Sequence Listing

<210> 30

<211> 87

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Deletion
construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(84)

<400> 30

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

gca gcg gcc ccg gcg ccc ggg gcg ccc cta tct gac taa 87

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ser Asp

20 25

<210> 31

<211> 28

<212> PRT

<213> Artificial Sequence

Sequence Listing

<400> 31

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly
 1 5 10 15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ser Asp
 20 25

<210> 32

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Deletion
 construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(69)

<400> 32

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48
 Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly
 1 5 10 15

gca gcg gcc ccg gcg ccc atc tga 72
 Ala Ala Ala Pro Ala Pro Ile

20

Sequence Listing

<210> 33

<211> 23

<212> PRT

<213> Artificial Sequence

<400> 33

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

Ala Ala Ala Pro Ala Pro Ile

20

<210> 34

<211> 69

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

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<221> CDS

<222> (1)..(66)

<400> 34

Sequence Listing

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

gca gcg gcc cca tct gac taa

69

Ala Ala Ala Pro Ser Asp

20

<210> 35

<211> 22

<212> PRT

<213> Artificial Sequence

<400> 35

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

Ala Ala Ala Pro Ser Asp

20

<210> 36

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

Sequence Listing

<220>

<221> CDS

<222> (1)..(18)

<400> 36

gac tac gtg gcg gcg atc tga

21

Asp Tyr Val Ala Ala Ile

1

5

<210> 37

<211> 6

<212> PRT

<213> Artificial Sequence

<400> 37

Asp Tyr Val Ala Ala Ile

1

5

<210> 38

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

Sequence Listing

<220>

<221> CDS

<222> (1)..(24)

<400> 38

gac tac gtg gat ctg act aaa tct tag

27

Asp Tyr Val Asp Leu Thr Lys Ser

1 5

<210> 39

<211> 8

<212> PRT

<213> Artificial Sequence

<400> 39

Asp Tyr Val Asp Leu Thr Lys Ser

1 5

<210> 40

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Chicken p97

homolog

Sequence Listing

<400> 40

Cys Ser Gly Ala Gly Asn Lys Leu Ile Gln Gln His Leu Leu Val Ile

1 5 10 15

Thr Phe Val Pro Phe Ile Ile Leu Gly Gln Leu Gln Gly

20 25

<210> 41

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Chicken p97
homolog

<400> 41

Cys Ser Gly Ala Val Ser Pro Glu Leu Cys Phe Gln Lys Arg

1 5 10

<210> 42

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

Sequence Listing

P-element end

<400> 42

cgacgggacc accttatggt atttcatcat gggccagacc cacgtagtcc agcggc 56

<210> 43

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 43

cgacgggacc accttatggt atttcatcat gtctcgaacc aacgagagca gtatgc 56

<210> 44

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 44

cgacgggacc accttatggt atttcatcat ggtacagaca tctacttccc cccgct 56

Sequence Listing

<210> 45

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 45

cgacgggacc accttatggt atttcatcat gatcttgccg tttaaaatgt ggagtc 56

<210> 46

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 46

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<210> 47

Sequence Listing

<211> 56

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Rescued

P-element end

<400> 47

cgacgggacc accttatggtt atttcatcat gagccaaaca gaaagcagaa aagctc 56

<210> 48

<211> 56

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Rescued

P-element end

<400> 48

cgacgggacc accttatggtt atttcatcat ggcctgacct aagcagattt gactgc 56

<210> 49

<211> 15

<212> DNA

<213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Rescued
P-element end

<400> 49

cgacgggacc acctt

15

<210> 50

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued
P-element end

<400> 50

caacgctacc taatcttaag aacca

25